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| | | | | First Named Inventor | Won-Ho Lee | |
| | | | | Art Unit | Not Yet Assigned | |
| (use as many sheets as necessary) | | | necessary) | Examiner Name | Not Yet Assigned | |
| Sheet | 1 | of | 1 | Attorney Docket Number | 29926/39502 | |

| U.S. PATENT DOCUMENTS | | | | | | |
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| SA | | Fujieda et al., "Dependence of Si PN Junction Perimeter Leakage on the Channel-Stop Boron Dose and Interlayer Material" (IEEE ELECTRON DEVICE LETTERS, VOL. 20, NO. 8, AUGUST 1999, Pages 418-420) | | | |
| SA | | Morris et al., "An Accurate and Efficient Model for Boron Implants Through Thin Oxide Layers into Single-Crystal Silicon" (IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING, VOL. 8, NO. 4, NOVEMBER 1995, Pages 408-413) | | | |
| SPO | | Walter et al., "Dopant Channeling as a Function of Implant Angle for Low Energy Applications" (IEEE, 1999, Pages 126-129) | | | |
| SA | | Son et al., "Blanket Tilt Implanted Shallow Trench Isolation (BTI-STI) Process for Enhanced DRAM Retention Time Characteristics" (IEEE, 1999, Pages 122-124) | | | |

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